

REMARKS

Independent Claim 1 is the sole claim presented for consideration.

A typographical error in Claim 1 has been corrected.

Claim 1 remains rejected under 35 U.S.C. §103(a) as being obvious over Fan '693 in view of Yu '088. This rejection is respectfully traversed.

Applicant's invention as set forth in Claim 1 is directed to a geometric model conversion method of converting a three-dimensional CAD geometric analytical model of a thin wall structure into a two-dimensional analytical model. The method includes a step of generating a plurality of tetrahedral solid elements, each of which has single-layered structure in a plate thickness direction, by dividing an input three-dimensional CAD geometric analytical model which has a thin-walled structure, and a step of connecting intermediate nodes of sides that extend in a direction of plate thickness in each tetrahedral solid element to generate a plurality of triangular shell elements or rectangular shell elements as the two-dimensional analytical model. An injection molding analysis is executed with respect to each shell element of the two-dimensional analytical model generated in the connecting step and the results of the injection molding analysis are output.

In a Detailed Action attached to the Advisory Action mailed November 9, 2007, the primary citation to Fan is said to teach using tetrahedral solid elements to create a solid mesh and to create triangular shell elements by connecting intermediate nodes of sides that extend in a direction of plate thickness.

It is acknowledged that Fan discloses use of a tetrahedral solid element, and a triangular shell element, *per se*. These teachings, however, are directed to two different, conventional methods of structural analysis--solid element and shell element, each having their own advantages and disadvantages (see column 2, lines 41-52). Because of the disadvantages associated with both conventional methods, Fan uses a structural analysis method that generates a shell element model of pentahedral elements. Applicant's unique method of generating a plurality of tetrahedral solid elements and connecting intermediate nodes of sides that extend in a direction of plate thickness in each tetrahedral solid element to generate a plurality of triangular shell elements or rectangular shell elements as the two dimensional analytical model is not taught or suggested by Fan.

With respect to the secondary citation to Yu, a modelling method for three dimensional objects is disclosed in which the surface of a plate of a thin-walled structure is divided into surface elements. Yu fails, however, to compensate for the deficiencies in Fan as discussed above.

Accordingly, it is respectfully submitted that the patents to Fan and Yu could not have been combined to render obvious Applicant's invention as set forth in Claim 1. Therefore, reconsideration and withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

REQUEST FOR INTERVIEW

Applicant's undersigned representative will telephone the Examiner within two weeks to schedule a personal interview. Should the Examiner take up the application for

examination before an interview has been scheduled, it is respectfully requested that Applicant's representative be contacted at the number listed below.

CONCLUSION

Due consideration and prompt passage to issue are respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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